

What is claimed is:

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1. A method of prophylaxis of a patient at risk for systemic inflammatory response syndrome and complications thereof or of treating a patient having systemic inflammatory response syndrome or complications thereof, which comprises administering to said patient a therapeutically effective amount of a selective inhibitor of cyclooxygenase-2.
  2. The method of claim 1, wherein the systemic inflammatory response syndrome is at least one of sepsis, pancreatitis, burns, or trauma.
  3. A method of prophylaxis of a patient at risk for systemic inflammatory response syndrome and complications thereof or of treating a patient having systemic inflammatory response syndrome or complications thereof, which comprises administering to said patient a therapeutically effective amount of a drug which interferes with binding of PGE<sub>2</sub> to one or more PGE<sub>2</sub> receptors.
  4. A method of prophylaxis of a patient at risk for systemic inflammatory response syndrome and complications thereof or of treating a patient having systemic inflammatory response syndrome or complications thereof, which comprises administering to said patient a therapeutically effective amount of a drug which stimulates one or more PGE<sub>2</sub> receptors.
  5. The method of claim 3 or 4 wherein the PGE<sub>2</sub> receptors are selected from the group consisting of EP1, EP2, EP3, and EP4.
  6. The method of claim 3 wherein the drug is selected from the group consisting of a small molecule, peptide, peptide mimetic, and RNA-DNA-based structure.
  7. The method of claim 3, wherein the systemic inflammatory response syndrome is at least one of sepsis, pancreatitis, burns, or trauma.
  8. The method of claim 4 wherein the systemic inflammatory response syndrome is at least one of sepsis, pancreatitis, burns, or trauma.

9. The method of claim 1 wherein the patient at risk for systemic inflammatory response syndrome and complications thereof is a patient who has sustained at least one of trauma, burn injury, life threatening blood loss from penetrating injury, or a patient who has undergone surgery.

10. The method of claim 3 wherein the patient at risk for systemic inflammatory response syndrome and complications thereof is a patient who has sustained at least one of trauma, burn injury, life threatening blood loss from penetrating injury, or a patient who has undergone surgery.

11. The method of claim 4 wherein the patient at risk for systemic inflammatory response syndrome and complications thereof is a patient who has sustained at least one of trauma, burn injury, life threatening blood loss from penetrating injury, or a patient who has undergone surgery.

12. The method of claim 1 wherein the complications of systemic inflammatory response syndrome is at least one of septic shock, infections such as pneumonia, septicemia, bacteremia, urinary tract infections, wound infections or drug reactions.

13. The method of claim 3 wherein the complications of systemic inflammatory response syndrome is at least one of septic shock, infections such as pneumonia, septicemia, bacteremia, urinary tract infections, wound infections or drug reactions.

14. The method of claim 4 wherein the complications of systemic inflammatory response syndrome is at least one of septic shock, infections such as pneumonia, septicemia, bacteremia, urinary tract infections, wound infections or drug reactions.

15. The method of claim 1 wherein the cyclooxygenase-2 inhibitor is at least one of NS-398, celicoxib, MK-0966, or paracoxib.

16. A method of beneficial immune modulation which comprises administering to a patient in need of such modulation a therapeutically effective amount of a drug which stimulates one or more PGE<sub>2</sub> receptors.

17. A method of beneficial immune modulation which comprises administering to a patient in need of such modulation a therapeutically effective amount of a drug which interferes with binding of PGE<sub>2</sub> to one or more PGE<sub>2</sub> receptors.

18. The method of claim 16 wherein the drug is selected from the group consisting of a small molecule, peptide, peptide mimetic, and RNA-DNA-based structure.

19. The method of claim 17 wherein the drug is selected from the group consisting of a small molecule, peptide, peptide mimetic, and RNA-DNA-based structure.

20. The method of claim 16 wherein the drug is at least one of sulprostone, 11-deoxy-PGE<sub>1</sub> or ONO-AP-324.

21. The method of claim 17 wherein the drug is at least one of AH-6809, ONO-8711, ONO-8713, and AH23848.

22. The method of claim 3 wherein the drug is at least one of AH-6809, ONO-8711, ONO-8713, and AH23848.

23. The method of claim 4 wherein the drug is at least one of sulprostone, 11-deoxy-PGE<sub>1</sub> or ONO-AP-324.

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